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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,666	01/13/2003	Heather M. Hudson	5051-461XX	5677
20792	7590	02/23/2004	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC			HENDRICKS, KEITH D	
PO BOX 37428			ART UNIT	
RALEIGH, NC 27627			PAPER NUMBER	
			1761	

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,666

Applicant(s)

HUDSON ET AL.

Examiner

Keith Hendricks

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 45-49 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01102002.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

i) Claims 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Langton et al. (Food Hydrocolloids, 1992).

Langton et al. disclose fine-stranded gels of both β -lactoglobulin and whey proteins produced at varying pH values. β -lactoglobulin and whey protein concentrate were dissolved in water, and hydrochloric acid (pg. 524) was utilized to bring the pH to 4.0 or 3.5. The preparations were then heated at either 85°C for 30 minutes, or 90°C for 60 minutes (pg. 525) to form the gel. The results demonstrate that both the β -lactoglobulin and whey protein concentrate preparations formed weak, brittle fine-stranded gels at pH of 4.0 or less (see pg. 531 and 535-537) when treated with acid and heated. Reference is also made to previous work in the art, where brittle, fine-stranded whey protein gels are formed at pH 2.5 upon heating, with subsequent analysis of a protein band “possibly corresponding to an acid hydrolysis product of β -lactoglobulin” (bottom pg. 537). Note that, although not specifically labeled as such by the reference, this is an FS-II gel, which by definition is a weak fine-stranded gel formed below the isoelectric point of the preparation, as was the case in the reference.

Thus, Langton et al. anticipates the invention.

i) Claims 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Haque et al. (J. Agric. Food Chem., 1997).

Haque et al. disclose the production of gels from β -lactoglobulin purified from cheddar whey. Preparations at a pH of 3.5, 7.0 and 9.0 were gradually heated until reaching 90°C, resulting in “the formation of gels within the cuvette” (pg. 2960, col. 2). Note that, although not specifically labeled as such by the reference, this is an FS-II gel, which by definition is a weak fine-stranded gel formed below the isoelectric point of the preparation, as was the case in the reference.

Thus, Haque et al. anticipates the invention.

Art Unit: 1761

iii) Claims 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (US PAT 5,654,019).


Kobayashi et al. disclose bone-enhancing factors made from whey protein preparations. Reference is made to examples 10 and 11, where a whey protein concentrate solution is adjusted to a pH of 3.0 or 3.5. The formed precipitate is isolated by centrifugation, and heated at 80°C for 10 minutes. The product is subsequently lyophilized to form a powder. While the reference does not specifically characterize the product as a gel, it utilizes the same starting materials and protocol steps as the instantly-claimed invention. Thus one of ordinary skill in the art would expect the resultant product to be the same as that produced by the instant invention, namely a fine-stranded gel, absent any clear and convincing evidence and/or arguments to the contrary. Note also that, although not specifically labeled as such by the reference, this would be an FS-II gel, which by definition is a weak fine-stranded gel formed below the isoelectric point of the preparation, as was the case in the reference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (571) 272-1401. The examiner can normally be reached on M-F (8:30am-6pm); First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KEITH HENDRICKS
PRIMARY EXAMINER